

BID FORM

MISSOURI DEPARTMENT OF TRANSPORTATION
GENERAL SERVICES
2309 Barrett Station Road
Ballwin, MO 63021

REQUEST NO.	D610-090-RW
DATE	December 10, 2009
PAGE NO.	1
NO. OF PAGES	34

SEALED BIDS, SUBJECT TO THE ATTACHED CONDITIONS
WILL BE RECEIVED AT THIS OFFICE UNTIL

10:00 A.M., CT. January 12, 2010

AND THEN PUBLICLY OPENED AND READ FOR FURNISHING
THE FOLLOWING SUPPLIES OR SERVICES.

**BIDS TO BE BASED F.O.B. MISSOURI DEPARTMENT OF
TRANSPORTATION**

Submit net bid as cash discount stipulations will not be considered

Job Location:

**State Route K & Mexico Road, O'Fallon, MO.,
St. Charles County**

BUYER:	Teresa (Terri) Mount, Sr. General Services Specialist	
BUYER EMAIL:	Teresa.Mount@modot.mo.gov	BUYER TELEPHONE: (314) 301-1431

Description

**Furnishing, installing and placing into operation a vehicle detection system in accordance with the Scope of
Work at the location indicated above**

COMPLETION DATE: MARCH 31, 2010

Note to Respondent: A vendor must be in compliance with the laws regarding conducting business in the State of Missouri. The compliance to conduct business in the state shall include but may not be limited to: Registration of business name, vendors **MUST** submit a bid/proposal that correctly and accurately identifies the company name that is registered to do business in the State of Missouri. The Missouri Department of Transportation reserves the right to reject any or all bids, and to accept or reject any items thereon and to waive technicalities. All bids must be signed with the firm name and by a responsible officer or employee. Obligations assumed by such signature must be fulfilled.

(SEE ATTACHED FOR CONDITIONS AND INSTRUCTIONS)

In compliance with the above invitation for bids, and subject to all conditions thereof, the undersigned bidder agrees to furnish and deliver any or all the items on which prices were bid within 30 days after receipt of formal purchase order.

Date:	_____	Firm Name:	_____
Telephone No.:	_____	Address:	_____
Fax No.:	_____		_____
Federal I.D. No.	_____	By (Signature):	_____
Email Address:	_____	Type/Print Name	_____
		Title:	_____

Is your firm MBE certified? ☐ Yes ☐ No

Is your firm WBE certified? ☐ Yes ☐ No

List all agencies your firm is currently certified with:

1.0 INTRODUCTION AND ORGANIZATION

1.1 MoDOT is seeking qualified contractors to install and provide a vehicle detection system as described in this bid.

1.2 **Organization:** This document, referred to as a Request for Bid (RFB), is divided into the following parts:

- 1) Introduction and Organization
- 2) Bid Submission Information
- 3) Components of Agreement
- 4) Other Requirements
- 5) Scope of Work
- 6) **Pricing Page** (SIGN AND RETURN)
- 7) **Attachment A:** Anti-Collusion Statement (SIGN AND RETURN)
- 8) **Attachment B:** Preference In Purchasing Products (SIGN AND RETURN)
- 9) **Attachment C:** Missouri Domestic Products Procurement Act (SIGN AND RETURN)
- 10) **Attachment D:** Signature and Identity of Bidder (SIGN AND RETURN)
- 11) **Attachment E:** Worker Eligibility Verification Affidavit (SIGN AND RETURN)
- 12) **Attachment F:** Missouri Service-Disabled Veteran Business Preference (SIGN AND RETURN, *if appropriate*)
- 13) **Bid Bond** (*To be executed AND SUBMITTED WITH THE BID in lieu of a Certified Check, Cashier's Check or Bank Money Order*)
- 14) Standard Bid/Proposal Provisions, General Terms and Conditions and Special Terms and Conditions
- 15) Exhibit A- Traffic Approved Products List

2.0 Bid Submission.

2.1 Each bid must be mailed in a sealed package to Ms. Terri Mount General Services Procurement Unit, 2309 Barrett Station Road, Ballwin, MO 63021, or hand-delivered in a sealed package to the General Services Procurement Office located at 2309 Barrett Station Road, Ballwin, MO 63021. All questions regarding the RFB shall be submitted to the RFB Coordinator. All bids must be received at the General Services Procurement Office located at 2309 Barrett Station Road, no later than **10:00 a.m., CT, January 12, 2010.**

RFB Coordinator:

Terri Mount, Sr. General Services Specialist

Missouri Department of Transportation

2309 Barrett Station Road

Ballwin, MO 63021

PHONE: (314) 301-1431; FAX: (314) 301-1437

2.2 All bids must be received in a sealed package clearly marked **“D610-091-RW “ Vehicle Detection System”**.

2.3 Proposal/Bid Guaranty/Contract Bond

Each bid shall be accompanied by a Bid Bond, Certified Check, Cashier's Check or Bank Money Order payable to the Director of Revenue – Credit State Road Fund for an amount equal to Five Percent (5%) of the amount of the BID submitted. This is to act as a guarantee that the bidder, if awarded the contract, will furnish an acceptable performance and payment bond (Contract Bond) or a cashier's check, a bank money order or a certified check made payable to “Director of Revenue—Credit State Road Fund” in an amount equal to One Hundred (100%) of the contract price.

If a BID BOND is used (in lieu of a certified check, cashier's check, or bank money order), it must be in the form provided and executed by the bidder as principal and by a surety company authorized to do business in the State of Missouri as surety. The agent executing the same on behalf of the surety company must attach a current Power of Attorney setting forth his authority to execute the bond involved.

Certified Checks, Cashier's Checks or Bank Money Orders of unsuccessful bidders will be returned as soon as the award is made. The checks or bank money orders of the successful bidder(s) will be retained until the contract is executed and a satisfactory Performance and Payment (Contract Bond) is furnished. Bid Bonds will not be returned except on specific request of the bidder.

2.4 Open Competition/Request for Bid Document.

2.4.1 It shall be the bidder's responsibility to ask questions, request changes or clarification, or otherwise advise MoDOT if any language, specifications or requirements of an RFB appear to be ambiguous, contradictory, and/or arbitrary, or appear to inadvertently restrict or limit the requirements stated in the RFB to a single source. Any and all communication from bidders regarding specifications, requirements, competitive bid process, etc., must be directed to the buyer from MoDOT, unless the RFB specifically refers the bidder to another contact. Such communication should be received at least five (5) working days prior to bid closing date.

2.5 Award: Award of this bid will be made on an “All Or Nothing” basis using the “lowest and best” principle of award.

2.6 Rejection of Bids: MHTC reserves the right to reject any or all bids, for any reason whatsoever.

2.7 Out of State Vendors: Out of state vendors will be required to submit a copy of his/her Out of State Transient Employer's Certificate as issued by the Missouri Department of Revenue (DOR). The contractor must be able to obtain a tax payment bond in the amount currently required by the DOR. If all the appropriate information is made available to the DOR, it may take 2-3 weeks for the contractor to obtain the tax bonding and "Certificate of Registration".

2.8 Insurance Requirements: Please refer to the *Standard Bid/Proposal Provisions, General Terms and Conditions and Special Terms and Conditions* that are attached to the bid documents for information on required insurance for this project.

2.9 Non-Exclusivity:

The Missouri Department of Transportation reserves the right to obtain like or similar services of this or other manufacturers when use of such products is deemed in the best interest of MoDOT.

2.10 Non-Employment of Unauthorized Aliens: Pursuant to RSMo 285.530 (1), no business entity or employer shall knowingly employ, hire for employment, or continue to employ an unauthorized alien to perform work within the State of Missouri. As a condition for award of any contract or grant in excess of five thousand dollars by the State or by any political subdivision of the State to a business entity, or for any business entity receiving a state-administered or subsidized tax credit, tax abatement, or loan from the state, the business entity shall, by sworn affidavit and provision of documentation, affirm its enrollment and participation in a federal work authorization program with respect to the employees working in connection with the contracted services. As provided in Section 285.530(2), RSMo, every such business entity shall sign an affidavit affirming that it does not knowingly employ any person who is unauthorized alien in connection with the contracted services. A copy of the affidavit referenced above is provided within this document.

E-Verify is an example of a federal work authorization program. The Bidder must affirm its enrollment and participation in a federal work authorization program with respect to the employees proposed to work in connection with the services requested herein by providing acceptable enrollment and participation documentation consisting of completed copy of the E-Verify Memorandum of Understanding (MOU). For Bidders that are not already enrolled and participating in a federal work authorization program, E-Verify is available at http://www.dhs.gov/xprevprot/programs/gc_1185221678150.shtm.

3.0 COMPONENTS OF AGREEMENT

3.1 The Agreement between MHTC and the successful Bidder shall consist of: the RFB and any written amendments thereto, the "Standard Bid/Proposal Provisions, General Terms and Conditions and Special Terms and Conditions" that are attached to the RFB, the bid submitted by the Bidder in response to the RFB and the post-award contract (if applicable) signed between the parties.

3.2 However, MHTC reserves the right to clarify any relationship in writing and such written clarification shall govern in case of conflict with the applicable requirements stated in the RFB or the Bidder's bid. The Bidder is cautioned that its bid shall be subject to acceptance by MHTC without further clarification.

4.0 OTHER REQUIREMENTS

4.1 The contractor shall provide all deliverables/services to the sole satisfaction of MHTC.

4.2 Unless otherwise specified herein, the contractor shall furnish all material, labor, facilities, equipment, and supplies necessary to provide the deliverables/services required herein.

4.3 It is the bidders responsibility to access MoDOT's website in order to obtain any and all addenda(s) issued during the course of the RFB process.

http://www.modot.mo.gov/business/contractor_resources/Commodities.htm

4.4 Visit to Job Site(s) may be done at Bidders discretion, MoDOT personnel will not be required to be present.

5.0 SCOPE OF WORK

D610-091-RW- Vehicle Detection System

Location for video detection system and battery backup system is State Route K & Mexico Road in O'Fallon, MO. See attached map for location.

VIDEO DETECTION SYSTEM

- 5.0 Description.** This work shall consist of furnishing, installing and placing into operation a vehicle detection system that detects vehicles by processing video images and providing detection outputs to a traffic signal controller. In addition to presence detection zones, data collection zones for counts and speed are also to be set up during this installation. Video detection system must integrate with the existing District 6 DCMS.2 Traffic Data Collection and Management Service which requires the specific brand Econolite Autoscope.. This work will also entail the installation of a TS2 Type 2 controller with an SDLC port and an internal multimode fiber modem. Signal controller (EPAC M52) is required to integrate with MoDOT District 6 existing ACTRA database system. Traffic signal and lighting equipment, parts, or supplies must be in accordance with the Missouri Department of Transportation Approved Products List (APL).
- 5.1 Notification.** The engineer shall be notified at least 2 weeks in advance of the proposed date of installation. All work is to be completed by March 31, 2010, unless approved by the engineer.
- 5.2 Traffic Control Plan.** This work shall be installed on a weekday between 9 AM and 3 PM or on a weekend during daytime hours. No lane drops are permitted outside these hours. Use the attached traffic control plan sheet provided in the plans for lane drop and work area protection.
- 5.3 Installation of Video System.** Existing 6'x15' quadpole stopbar loop lead-in cable is to be removed from existing conduit system. All 6'x6' diamond loop lead-in cable is to remain in place for future usage. Every attempt must be made by contractor to utilize existing conduit system. In the event any existing conduit is unusable, a directional bore is to be completed with consent of engineer. Three-inch conduit is to be utilized. A small amount of concrete work will also be necessary. Attached intersection plans detail location of existing cabinet, conduit and pullboxes.
- 5.4 Video System Requirements.** The following are references to the 2004 Missouri Standard Specifications for Highway Construction : Delete Secs. 902.13.4 and 1092.4.7.7 in their entirety and substitute the following:
- 902.13.4 Video Detection System.** The system shall include all equipment shown on the plans and described in these specifications, plus any incidental items necessary for the satisfactory operation and maintenance of the system. All original identifying information from the packaging of each installed camera shall be placed in the signal cabinet. The video detection system shall be installed per the manufacturer's recommendations. **The installer shall be certified by the video detection system's manufacturer to install the system.** All coaxial cable runs (if used) shall be continuous without splice from the cabinet to the camera. If requested by the engineer, a factory certified representative from the supplier shall be available for on-site assistance for a minimum of one day during installation.
- 902.13.4.1 Camera.** The bottom of the video camera shall be mounted a minimum of 30 feet (9.0 m) above the pavement, unless otherwise indicated on the plans or approved by the Engineer.

902.13.4.2 Extra Service Outlet. A separate grounded 120 VAC service outlet shall be provided in the controller cabinet for supplying power to the parts of the video detection system requiring AC power. Use of the grounded service outlet located on the cabinet door will not be permitted.

1092.4.7.7.1 System Requirements. The video detection system shall provide flexible detection zone placement at any location and at any orientation within the combined field of view of the image processors. Preferred presence detector zone configurations shall be a box or lines placed across lanes of traffic or lines placed parallel with lanes of traffic. Detection zones shall be capable of overlapping, and be configurable to be directional in order to prevent vehicles that approach from all but 1 direction from activating the detection zone.

1092.4.7.7.1.1 The detection zones shall be created by drawing the detection zones on the video image. A graphical user interface shall be built into the video detection system and displayed on a video monitor or computer. It shall be possible to edit previously defined detector configurations to fine-tune detection zone placement.

1092.4.7.7.1.2 When a vehicle is detected by crossing a detection zone, there shall be a visual change on the video display, such as a flashing symbol or a change in color or intensity to verify proper operation of the video detection system.

1092.4.7.7.1.3 Overall performance of the video detection system shall be comparable to inductive loops. Using camera optics and in the absence of occlusion, the video detection system shall be able to detect vehicle presence with 98% accuracy under normal day and night conditions with only slight deterioration in performance under adverse weather conditions, including fog, snow and rain. When visibility exceeds the capabilities of the camera, the video detection system shall default to placing a call on all detectors.

1092.4.7.7.1.4 The video detection system shall be capable of being programmed via one dial up modem connection at a minimum of 56.6 kbps to the camera(s). It shall provide at a minimum still image and real time detection displays to a remote computer using supplied video detection system software through the modem (not provided by the contractor).

1092.4.7.7.1.5 In addition to presence detection, the video detection system shall be capable of performing at a minimum the following calculations in real time and store the values for each camera view for any visible lane without the addition of another device:

- a) Speed
- b) Volume
- c) Lane Occupancy
- d) Vehicle Classification

1092.4.7.7.2 Video Detection System Components. The video detection system will be defined as the complete assembly of all required equipment and components for detection of vehicles. Each video detection system shall consist of the video camera(s), lightning arrester for video cabling, processor unit(s), control device (track ball or keypad; no mouse allowed), software and license for system control via a computer (if applicable), and a color monitor. All camera views shall be obtainable without requiring the disconnection and reconnection of cables within the system.

1092.4.7.7.2.1 Video Detection System Software. The video detection system shall include software that detects vehicles in multiple lanes using only the video image. Detection zones shall be defined using a video monitor and control device to place the zones on a video image, which may include a laptop computer. A minimum of 12 detection zones per camera shall be available.

1092.4.7.7.2.2 Video Detection System Connections. All bus connections in the video detection system shall be corrosion resistant. Serial communications to a computer shall be through an RS-232/RS-422 serial port through a subminiature “D” connector with a computer running supplied system software. The port shall have the capability to access detection system data as well as the real-time imagery needed to show detector actuations. The processor shall have a RJ-45 plug using Ethernet 10/100 protocols.

1092.4.7.7.2.2.1 The equipment shall be provided with either a NEMA TS1 or NEMA TS2 interface as shown on the plans.

1092.4.7.7.2.2.1.1 For TS1 systems, the video detection system shall be equipped with a TS1 detector interface for a minimum of 16 detector outputs, or 32 detector outputs if required by Job Special Provisions. Logic output levels shall be compatible with the TS1. A subminiature “D” connector on the video detection system shall be used for interfacing to these outputs.

1092.4.7.7.2.2.1.2 For TS2 systems, the video detection system shall be equipped with a TS2 Type 1 detector interface, where detector information is transmitted serially via an RS-485 data path. A 15-pin subminiature “D” connector, meeting the requirements of the TS2 standard, shall be used for the serial detector output. A minimum of 16 detector outputs is required, with the capability of expansion to 32 outputs if required by Job Special Provisions. If a MMU (malfunction management unit) is required for video detection system functionality in an existing cabinet, the MMU will be considered as part of this video detection system with no direct pay and all required connections will be considered part of the video detection system installation.

1092.4.7.7.2.2.2 The video detection system shall be provided for either single camera or multiple camera installations as shown on the plans. Multiple camera installations shall be configured so that failure of 1 camera or control module shall not affect the operation of the remaining cameras or control modules.

1092.4.7.7.2.2.2.1 All video detection systems shall have a RS-170 (NTSC) video input to process another synchronous video source in real-time. The video detection system shall have at least 1 RS-170 (NTSC) video output.

1092.4.7.7.2.2.2.2 The video detection system shall be capable of providing the connection of a local surveillance camera or other non-detection video source. The video from the auxiliary input shall not be processed for video detection. The video detection system shall have an RS-170 (NTSC) composite video output, which may correspond to any of the video inputs, as selected remotely via RS-232 or locally by front panel switch. Multiple video inputs shall be routed into external video switchers (mounted to the monitor if provided).

1092.4.7.7.2.2.2.3 The video detection system shall be able to turn any detection zone in the default detector pattern on or off by internal time base control. The video detection system shall also be capable of switching to any detector pattern at the request of the user by either a menu selection with the control device or through a computer.

1092.4.7.7.2.3 Monitor. The monitor shall be a LCD active matrix with a minimum 7” diagonal screen color monitor, an NTSC-M system and BNC video in-out connections built into the housing. The unit shall be compact and lightweight, securely mounted to the cabinet shelving, have low power consumption, constructed to operate under extreme temperature conditions, and run on AC power. AC adaptor shall be included. The monitor shall be installed to automatically power on when the cabinet door is opened and automatically power off when the cabinet door is closed. A manual on/off switch shall be provided. If the video detection system is installed in a 332 or 336 cabinet or NEMA cabinet housing a master controller or in one that does not have shelf space, the screen size will be 5” diagonal with all other noted provisions unchanged.

1092.4.7.7.2.4 Video Camera and Housing. The video detection system supplier shall furnish the video camera for traffic detection. The camera shall produce a color video image of vehicles during daylight hours, with an optional production of black and white images during nighttime hours. The video shall produce a clear image for scenes with a luminance from a minimum range of 0.18 to 929 foot-candles (2.0 to 10,000 lux).

1092.4.7.7.2.4.1 The camera shall provide a minimum resolution of 430 lines horizontal (TVL) and 350 lines vertical under NTSC operation.

1092.4.7.7.2.4.2 The camera shall include an electronic shutter or auto iris control based on average scene luminance and shall be equipped with an auto iris lens.

1092.4.7.7.2.4.3 The camera shall have a variable focal length. The maximum aperture of the lens shall not be smaller than f1.8 and the minimum aperture shall not be larger than f300. The camera shall have a horizontal field of view ranging from a minimum angle of view between 5 degrees and 10 degrees wide to a maximum angle of at least 45 degrees. The adjustments for focus and focal length shall be made without opening up the camera housing.

1092.4.7.7.2.4.4 The camera shall be contained in an enclosure that is waterproof and dust-tight to NEMA-4 specifications. A minimum 5W heater shall be incorporated in the camera to prevent the formation of condensation and to assure proper operation of the lens' iris mechanism. The heater shall not interfere with the operation of the image sensor electronics, and it shall not cause interference with the video signal. The enclosure shall allow the camera to be rotated in the field during installation.

1092.4.7.7.2.4.5 The housing shall be equipped with a sun shield that prevents sunlight from directly entering the lens. The sun shield shall include a provision for water diversion to prevent water from flowing in the camera field of view, and shall be able to slide forward and back.

1092.4.7.7.2.4.6 The total weight of the enclosure, camera, lens, housing, sun shield and mounting bracket shall be less than 10 pounds (4.5 kg).

1092.4.7.7.2.5 Cable. Coaxial cable, if used, shall be a 75 ohm, precision video cable with 20 AWG (0.50 mm2) solid bare copper conductor, maximum of 10.1 ohms/m Nom. D.C.R., solid polyethylene insulating dielectric, 96% minimum tinned copper double-braided shield with a black polyethylene outer covering. The signal attenuation shall not exceed 0.8 dB per 100 feet (30 m) at 10 MHz. Nominal outside diameter shall be 0.305 inches (7.7 mm). The cable shall be in accordance with Belden Type 8281, West Penn P806 or approved equal.

1092.4.7.7.2.5.1 Seventy-five ohm BNC plug connectors shall be used with coaxial cable, if used. The supplier of the video detection system shall approve the coaxial cable, BNC connectors and crimping tool, and provide a 10% extra quantity of the needed BNC connectors with the system. The manufacturer's instructions shall be followed.

1092.4.7.7.2.5.2 Multi-conductor cable shall be per the manufacturer's recommendation and in accordance with Sec 1061.

1092.4.7.7.2.5.3 Twisted pair cable shall meet recommendations of the video detection system manufacturer. Pairs shall be untinned, with an overall shield. Individually shielded pairs will not be allowed.

1092.4.7.7.2.6 Maintenance and Support. The supplier shall maintain an ongoing program of technical support and software updates for the video detection system following expiration of the warranty period. The supplier shall maintain an adequate inventory of parts to support maintenance and repair of the video detection system.

1092.4.7.7.2.7 Warranty of Video Detection System. The video detection system shall be warranted to be free of defects in material and workmanship for a minimum of two years, with the cameras being warranted for the same for two years. During the warranty period, technical support from factory certified personnel or factory certified installers shall be available from the supplier. Ongoing software support by the supplier shall include updates for the processor unit and computer software and shall be provided at no cost during the warranty period. The update of the processor unit software to be National Transportation Communications for ITS Protocol (NTCIP) compliant shall be included.

1092.4.7.7.2.8 Training of Video Detection System. A minimum of one day of training shall be provided in the operation, setup and maintenance of the video detection system.

5.5 Construction Requirements. Construction requirements shall conform to Sec 902.

5.6 Method of Measurement. Method of measurement shall conform to Sec 902.

5.7 Basis of Payment. Accepted video detection systems will be made at the contract unit price per each. Payment will be considered full compensation for all labor, equipment and material to complete the described work.

5.8 No direct payment will be made for programming the video detection system and its local intersection controller.

SCOPE OF WORK D610-091-RW

UNINTERRUPTIBLE POWER SUPPLY

5.9 Description. An "Uninterruptible Power Supply" (UPS) specifically constructed and NEMA approved for traffic signal operation shall be installed at this location. This work is to be completed by March 31, 2010.

5.10 Location and Cabling. UPS shall be installed separate from the signal cabinet and may be installed in the same cabinet as the power supply. In addition to the power cables from the UPS to the signal cabinet, the contractor will route but not connect a CAT-5 cable between the UPS RJ-45 port and the Ethernet switch in the signal cabinet, and also a serial cable connected to the UPS and of sufficient length to be terminated to the D-plug panel in the signal cabinet. The CAT-5 cable and serial cable will be run in a separate conduit from the power cables into the cabinet. All conduits will be internal and not visible from the exterior of either the UPS or signal cabinet.

5.11 Input Specifications. Each UPS system shall have the following input requirements:

- a) Nominal input voltage of 120VAC.
- b) An input voltage range of 85 to 175VAC.
- c) Two (2) input voltage boost modes.
- d) Boost-1 shall increase the input voltage from 94 to 115VAC.
- e) Boost-2 shall increase the input voltage from 85 to 101VAC.
- f) Two (2) input voltage buck modes.
- g) Buck-1 shall decrease the input voltage from 154 to 124VAC.
- h) Buck-2 shall decrease the input voltage from 175 to 142VAC.

- i) A user configurable power quality (PQ) option with default values of:
- j) High line disqualify shall be 130VAC.
- k) High line qualify shall be 128VAC.
- l) Low line qualify shall be 105VAC.
- m) Low line disqualify shall be 100VAC.
- n) Input current shall be less than 16A with nominal line voltage, full load on the output and charger set at 10A.
- o) Shall have 50/60Hz automatic frequency detection with built-in class A EMI filter and transient suppression.

5.12 Output Specifications. Each UPS system shall have the following output requirements:

- a. The output voltage of the UPS shall be 120VAC $\pm 10\%$ in line mode.
- b. The output voltage of the UPS shall be 120VAC $\pm 6\%$ in backup mode.
- c. The output frequency of the UPS shall be 60Hz $\pm 5\%$ in line mode.
- d. The output frequency of the UPS shall be 60Hz $\pm 5\%$ in backup mode.
- e. The output waveform of the UPS shall be sinusoidal.
- f. The output voltage total harmonic distortion (THD) shall be less than 3% with a resistive load.
- g. The efficiency of the UPS at nominal line voltage shall be greater than 98%.
- h. The efficiency of the UPS in backup mode shall be greater than 84%.
- i. The step-load response of the UPS shall be full recovery in $\frac{1}{2}$ -cycle @ 50% change with a resistive load.
- j. The transfer time of the UPS line to backup and backup to line shall be 5ms typical.
- k. The line qualification time of the UPS shall be user selectable at 3, 10, 20, 30, 40 and 50sec.
- l. The line qualification time of the UPS default shall be three (3) seconds.

5.13 Battery and Charger Specifications. Each UPS system shall have the following specifications for the battery and charger:

- a) The nominal battery voltage of the UPS shall be 48VDC.
- b) The battery charger current of the UPS shall be user programmable for 3, 6 and 10A.
- c) The battery charger current default setting for the UPS shall be 6A.
- d) The battery charger in the UPS shall turn OFF when the battery temperature is 50°C.
- e) The UPS shall have a user programmable temperature compensated battery charger with setting for -2.5, -4, -5 and -6 mV/°C/Cell.
- f) The UPS shall have a temperature compensated battery charger with a default setting of -5mV/°C/Cell.
- g) The UPS shall have a battery charger with a float voltage of 56VDC maximum.
- h) The UPS shall have a user configurable low battery warning.
- i) The UPS shall have a default low battery warning set at 47VDC to indicate 40% remaining battery capacity.
- j) The UPS shall have a low battery shutdown set for 42VDC (10.5VDC per battery).

5.14 Protection Specifications. Each UPS system shall have the following specifications for protection:

- a) The UPS shall have a 250VAC @ 20A input circuit breaker.
- b) The UPS shall have a 50A battery circuit breaker.
- c) The UPS shall have electronic short circuit protection when operating in backup mode.
- d) The UPS shall indicate an overload warning with a flashing alarm LED when the load is between 95% and 105% of the rated output for the UPS.
- e) The UPS shall shutdown in two (2) minutes when operating in backup mode when the load is between 106% and 115% of the rated output for the UPS, and the fault LED shall turn ON. The fault LED shall clear when the overload is removed and the utility line power returns.

- f) The UPS shall shutdown in one (1) minute when operating in backup mode when the load is greater than 115% and the fault LED shall turn ON. The fault LED shall clear when the overload is removed and the utility line power returns.
- g) The UPS shall disable the backup mode function when operating in line mode if the load exceeds 115% of the rated output for the UPS. The alarm shall be reset when the overload condition is removed.
- h) The UPS shall display an alarm LED if the battery ambient temperature is greater than 75°C and disable the backup mode function. The alarm shall clear when the battery ambient temperature is less than 70°C.
- i) The UPS shall display a fault LED when operating in backup mode and shutdown the inverter if the internal temperature is greater than 110°C. The fault shall clear when the utility power returns and the internal temperature is less than 90°C.
- j) The UPS shall have output over-voltage protection to electronically shutdown the UPS if the output voltage exceeds 132VAC.
- k) The UPS shall disable the battery charger in two (2) seconds and display an alarm LED if the battery voltage exceeds 59VDC. The alarm shall be cleared and charge enabled when the battery voltage drops to less than 57VDC.
- l) The UPS shall limit the charger voltage to 52VDC in the event the battery probe is not installed.
- m) The UPS shall have a battery circuit breaker with reverse polarity protection. The battery circuit breaker shall trip in the event the battery polarity is wired incorrectly.
- n) The UPS shall have protection for electrical back feed to the utility that meets UL 1778 and CSA C22.2 No. 107.1.3 requirements.
- o) The UPS shall have user selectable settings that are password protected.
- p) The UPS shall be cooled by a variable speed fan that is microprocessor and PWM controlled. The fan shall be OFF when the ambient temperature is less than 40°C.
- q) The UPS shall display an alarm LED to indicate the fan is enabled but not turning.
- r) The UPS shall have a fan that is field replaceable.

5.15 Displays, Controls and Diagnostics Specifications. Each UPS system shall have the following specifications for the noted features:

- 1. The UPS shall have a two (2) line/20-characters LCD display and control panel that can be rotated for easy user interface.
- 2. The UPS shall have event and alarm logging with time/date stamping for up to 100 historical events.
- 3. The UPS shall have six (6) independently programmable control relays for control and report functions.
- 4. The UPS shall have two (2) independently programmable timers 0 to 8hr with two (2) times-of-day restrictions on each timer.
- 5. The UPS shall be equipped with a RS-232 port, which can be connected to a laptop.
- 6. The UPS shall be equipped with a SNMP Ethernet card.

5.16 Programmable Dry Contacts. Each UPS system shall have the following requirements for the noted features relating to dry contacts:

- a) The UPS shall have six (6) sets of normally open (NO) and normally closed (NC) single pole double-throw (SPDT) dry contact relays rated for 250VAC @1A.
- b) The UPS shall have five (5) sets of dry contact relays that are user programmable, C1 through C5, and one relay contact that is factory configured, C6.
- c) The UPS shall have dry contact relays that are user programmable via either the RS-232 or (optional) Ethernet communication ports to activate under the following conditions:
 - ON BATTERY. The relay is energized whenever the UPS switches to battery power.

- LOW BATTERY. The relay is energized when the battery has reached a user defined low battery level of remaining useful capacity. This alarm is latched when a qualified line returns or the inverter shuts down. The default setting is 47VDC (~40%) of remaining useful battery capacity.
- TIMER 1. The relay is energized after being in backup mode for a given amount of time. This timer is adjustable from 0 to 8hr. The default setting is two (2) hours.
- ALARM. The relay is activated after a specific or general alarm is detected. The alarm conditions include: line frequency, low output voltage, no temperature probe, overload, unconnected batteries, high temperature (>55°C) and low temperature (<-20°C).
- FAULT. The relay is activated after a specific or general fault is detected. These faults include: short circuit, low battery voltage (<41VDC), high battery voltage (> 59VDC), overload and over temperature (>75°C).
- OFF. The relay is disabled and will not activate under any condition.
- TIMER 2. Same as TIMER 1.
- TIMER 3. Same as TIMER 1.
- AC/DC FAN CONTROL. The relay is activated when the battery ambient temperature is greater than 35°C or at a user programmable threshold from 25 to 55°C @ 5°C increments.
 - The UPS shall has a default dry contact relay configuration of:
 - C1 ON BATT
 - C2 LOW BATT
 - C3 LOW BATT
 - C4 TIMER
 - C5 ALARM
 - C6 48VDC

5.17 Mechanical. Each UPS system shall have the following mechanical requirements:

- a) The UPS shall have AC input and AC output terminal blocks mounted on the front panel. The terminal blocks shall be Weco p/n 324-HDS/03 or equivalent.
- b) The UPS shall have six (6) user programmable dry contact relay terminal blocks on the front panel. The terminal blocks shall be JITE p/n PTB750B-03-1-03-3 or equivalent.
- c) The UPS shall have one (1) user input and one (1) Automatic Transfer Switch (ATS) terminal block on the front panel. The terminal blocks shall be JITE p/n PTB750B-03-1-03-3 or equivalent.
- d) The UPS shall have a DE-9 RS-232 connector on the front panel.
- e) The UPS shall have an RJ45 Ethernet connector on the front panel.
- f) The UPS shall have a battery connector on the front panel. The battery connector shall be an Anderson p/n SB50 or equivalent.
- g) The UPS shall have a RJ14 battery temperature probe connector on the front panel.

5.18 Environmental. Each UPS system shall have the following environmental requirements:

- a) The operating temperature range of the UPS shall be -40° to 55°C with the capability of operating @ 800W for up to 2hr at 74°C ambient.
- b) The storage temperature range of the UPS shall be -40° to 75°C.
- c) The operating and storage humidity (non-condensing) range of the UPS is up to 95% RH.
- d) The altitude operating range of the UPS is up to 12,000ft with a de-rating of 2°C per 1000ft above 4500ft.
- e) The UPS shall be shipped in materials designed to meet requirements for ISTA program.

- f) The UPS shall pass electrical safety standards UL1778, CSA 22.2 No. 107.3, EN50091-1-1-2 and EN60950.
- g) The UPS shall pass emission standards FCC Subpart J Level A for conducted and radiated EMI CISPR22, EN55022 Level A for conducted and radiated EMI.
- h) The UPS shall pass Immunity standards:
 - i) EN61000-4-2: ESD (Electrostatic discharge).
 - j) EN61000-4-3: Radiated immunity.
 - k) EN61000-4-4: EFT (Electrical fast transient).
 - l) EN61000-4-5: Surge.
 - m) EN61000-4-6: Conducted (Power and signal lines).
 - n) EN61000-4-8: Power frequency magnetic.
 - o) EN61000-3-2: Harmonic distortion.
- p) The UPS shall display agency approval mark “cCSAus” on the manufacturer’s nameplate label

5.19 Manual Bypass Switch. Each UPS system shall include a manual bypass switch (MPS) with the following specifications:

- a) The MBP shall be a self-contained module separate from the UPS
- b) The MBP shall be shelf or rack mountable.
- c) The MBP shall have terminal blocks labeled “AC Input”, “AC Output”, “To UPS” and “From UPS”.
- d) The MBP shall be a Break-Before-Make rotary switch.
- e) The MBP shall be rated at 120VAC @ 20A.
- f) The MBP shall have a 5-15R duplex receptacle connected to utility line.
- g) The MBP shall have a 5-15R receptacle labeled “Optional LA-P” to facilitate a plug-in surge suppressor.
- h) The MBP shall have a 5-15R receptacle labeled “Optional Battery Heater Mat” to provide non-standby power to a battery heater mat.
- i) The MBP shall have two (2) positions: one labeled “UPS” to connect the utility line to the UPS, and one labeled “Bypass” to connect the utility line to the load.
- j) The MBP shall have a 15A circuit breaker labeled “AC Input”.
- k) The MBP shall have a 15A circuit breaker labeled “AC Output”.

5.20 Automatic Transfer Switch. Each UPS system shall include an automatic transfer switch (ATS) with the following requirements:

- a) The ATS shall be rated for 120VAC @ 40A.
- b) The ATS shall be shelf or rack mountable.
- c) The ATS shall transfer the load to UPS when the utility line fails or is unqualified.
- d) The ATS shall transfer the load to utility line when the utility line is available and qualified.
- e) The ATS shall be activated by a 48VDC input from the UPS.
- f) The ATS shall have a terminal block labeled “L IN”, “NEUT”, “GRD” and “L OUT”.
- g) The ATS shall have a six (6) foot line cord labeled “UPS IN”.

- h) The ATS shall have a six (6) foot line cord labeled “UPS OUT”.
- i) The ATS shall have a 5-15R duplex receptacle connected to utility line.
- j) The ATS shall have a 5-15R receptacle labeled “Optional LA-P” to facilitate a plug-in surge suppressor.
- k) The ATS shall have a 5-15R receptacle labeled “Optional Battery Heater Mat” to provide non-standby power to a battery heater mat.

5.21 Automatic Bypass Switch. Each UPS system shall include an automatic bypass switch (ABS) with the following requirements:

- a) The ABS shall be rated for 120VAC @ 20 amps.
- b) The ABS shall be shelf or rack mountable.
- c) The ABS shall connect the UPS to the load to allow the UPS to continuously power the load.
- d) The ABS shall transfer the load to utility line when there is no UPS output voltage.
- e) The ABS shall be activated by the 120VAC from the UPS.
- f) The ABS shall have a terminal block labeled “L IN”, “NEUT”, “GRD” and “L OUT”.
- g) The ABS shall have a six (6) foot line cord labeled “UPS IN”.
- h) The ABS shall have a six (6) foot line cord labeled “UPS OUT”.
- i) The ABS shall have a 5-15R duplex receptacle connected to utility line.
- j) The ABS shall have a 5-15R receptacle labeled “Optional LA-P” to facilitate a plug-in surge suppressor.
- k) The ABS shall have a 5-15R receptacle labeled “Optional Battery Heater Mat” to provide non-standby power to a battery heater mat.
- l) The ABS dimensions shall be 4.6”H x 4.75”W x 6.5”D.
- m) The ABS weight shall be 4lbs.

5.22 Generator Transfer Switch. Each UPS system shall include a generator transfer switch (GTS) with the following requirements:

- a) The GTS shall sense when a portable generator is connected and transfer the load to the generator after a 30s delay.
- b) The GTS shall be rated for 120VAC @ 20A.
- c) The GTS shall be shelf or rack mountable.
- d) The GTS shall have a terminal block labeled “AC INPUT”, “AC OUTPUT” and “GENERATOR INPUT”.

5.23 Batteries. The batteries for the UPS system shall meet the following requirements:

- a) The batteries shall be Gel Cell Valve Regulated Lead Acid (VRLA) type specifically designed for outdoor use.
- b) The batteries shall be designed for “Float Service” to provide 100% out-of-box runtime capacity.
- c) The batteries shall have Silver Alloy positive plates.
- d) The batteries shall have a five (5) year full replacement, non-prorated warranty.
- e) The battery capacity rating at 20hr shall be 94Ah.
- f) The battery shall be 12VDC.
- g) The number of batteries in the system shall be four (4) or eight (8).
- h) The batteries shall be connected to provide 48VDC.
- i) Batteries for each location shall provide full power for all devices shown on the plans that are powered through the signal cabinet for three (3) hours and then send the signal into all red flash and power that state for an additional three (3) hours.

j) **Battery Heater Mat**

- i. The battery heater mats shall be available in four (4) battery and single (1) battery sizes.
- ii. The single battery heater mat shall allow for a Master-Slave configuration so two (2) or more mats can be ganged together.
- iii. The battery heater mats shall plug into a 120VAC/5-15 receptacle.
- iv. The battery mats shall be thematically controlled, turning ON at 5°C and turning OFF at 15°C.
- v. The battery mats shall be thermally fused for 82°C to prevent thermal runaway.

5.24 Battery Charge Management System. Each UPS system shall have a battery charge management system with the following requirements:

- a) The battery charge management system shall spread the charge voltage equally across all batteries.
- b) The battery charge management system shall compensate for batteries with different internal resistances.
- c) The battery charge management system shall have a quality of final balance of $\pm 100\text{mV}$ maximum between any two (2) batteries in the string.
- d) The battery charge management system shall have reversed polarity protection.
- e) The battery charge management system shall be designed to CSA C22.2 No. 107.1 and UL 1778 Standards for safe unattended operation.

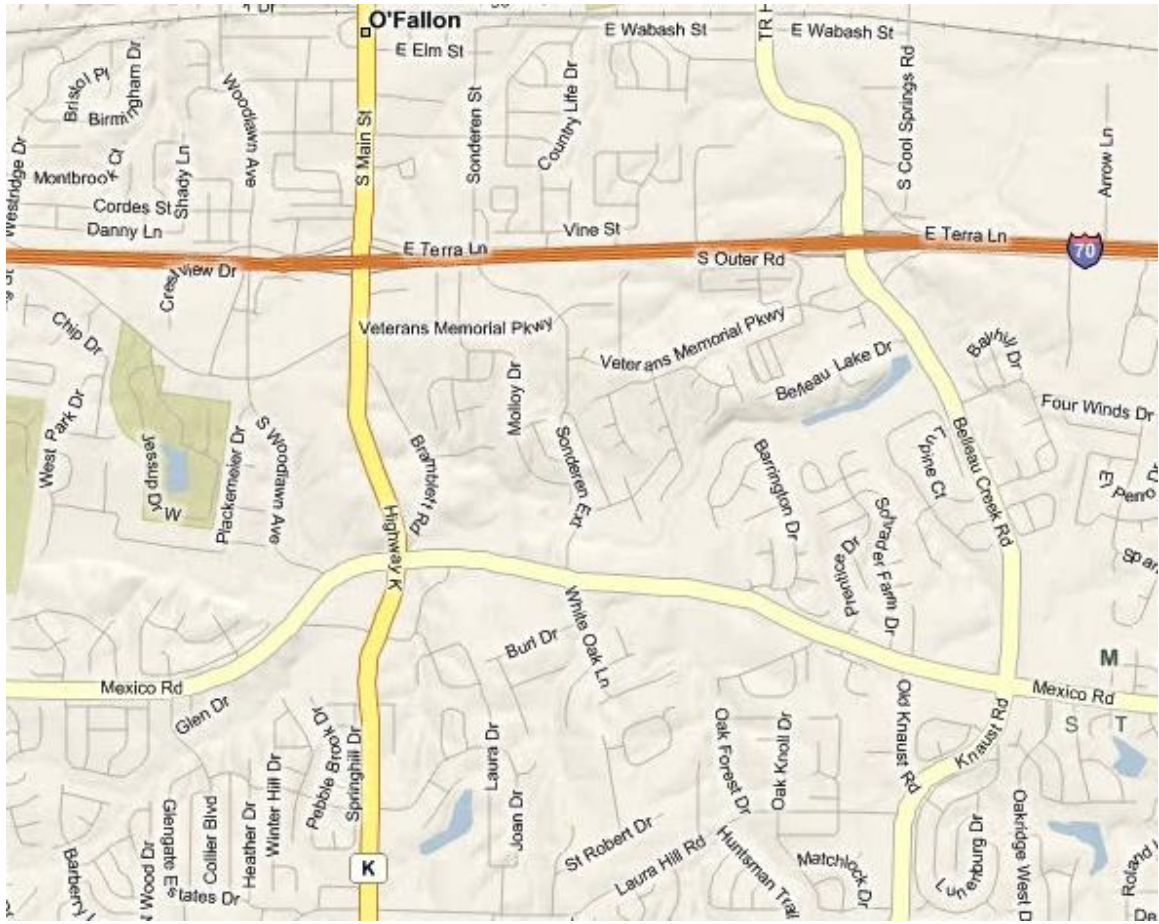
5.25 Surge Suppression. Each UPS system shall have the following requirements for surge suppression:

- a) The surge suppression shall provide protection from voltage transients appearing on the utility line.
- b) The surge suppression shall be a plug-in module that is field replaceable.
- c) The surge suppression shall have a LED indicator that turns OFF when the module is no longer providing protection.
- d) The surge suppression shall have a clamping voltage of 150VAC.
- e) The surge suppression shall have a response time of less than one (1) nanosecond.

5.26 Construction Requirements. Construction requirements shall conform to Sec 902. Any exceptions to these requirements will be approved by the engineer before system installation.

5.27 Method of Measurement. Method of measurement shall conform to Sec 902.

5.28 Basis of Payment. Payment will be for 1 unit per bid item “XX.XX – Uninterruptible Power Supply”. Payment will be considered full compensation for all labor, equipment and material to complete the described work.



6.0 PRICING PAGE
D610-091-RW Vehicle Detection System

The Bidder shall provide firm, fixed prices on the tables below for providing the deliverables/services in accordance with the provisions and requirements of this RFB. Upon completion of the pricing sheet the Bidder should sign where indicated on the bottom of the pricing table and submit with the other required bidding documentation.

QTY	Unit of Measure	Description	Unit Cost
		Installation vehicle detection system and battery backup (UPS system) @ State Rte K & Mexico Rd., O'Fallon, MO.	
1	Lump Sum	Installation per RFB (<i>includes all materials and supplies not specifically indicated below</i>)	
1	Lump Sum	Traffic Control	
1	Each	Vehicle Video Detection per RFB (Econolite Autoscope)	
1	Each	EPAC M52 Controller	
1	Each	UPS (Uninterruptible Power Supply) <i>Please indicate brand, and manufacturer</i>	
1	Lump Sum	* Directional Bore work, <i>if required</i> , per Section 5.3 of Scope of Work. <i>This work is only applicable with the specific consent of the MoDOT engineer.</i>	
		TOTAL UNIT COST	

SIGNATURE: _____

DATE: _____

COMPANY: _____

**7.0 ATTACHMENT A
ANTI-COLLUSION STATEMENT**

STATE OF _____)
)
COUNTY OF _____) SS.

_____) Being first

duly sworn, deposes and says that he is

Title of Person Signing

of _____

Name of Bidder
that all statements made and facts set out in the bid for the above project are true and correct; and that the bidder (The person, firm, association, or corporation making said bid) has not, either directly or indirectly, entered into any agreement, participated in any collusion, or otherwise taken any action in restraint of free competitive bidding in connection with such bid or any contract which may result from its acceptance.

Affiant further certifies that bidder is not financially interested in, or financially affiliated with, any other bidder for the above project.

By _____

By _____

By _____

Sworn to before me this _____ day of _____, 20____.

Notary Public

My Commission Expires _____

8.0 ATTACHMENT B
PREFERENCE IN PURCHASING PRODUCTS

DATE: _____

The bidders attention is directed to Section 34.076 RSMo 2000 which gives preference to Missouri corporations, firms, and individuals when letting contracts or purchasing products.

Bids/Quotations received will be evaluated on the basis of this legislation.

All vendors submitting a bid/quotation must furnish ALL information requested below.

FOR CORPORATIONS:

State in which incorporated: _____

FOR OTHERS:

State of domicile: _____

FOR ALL VENDORS:

List address of Missouri offices or places of business:

THIS SECTION MUST BE COMPLETED AND SIGNED:

FIRM NAME: _____

ADDRESS: _____

CITY: _____ **STATE:** _____ **ZIP:** _____

BY (signature required): _____

Federal Tax I.D. #: _____ **if no Federal Tax I.D. # - list Social Security #:** _____

NOTE: For bid/quotation to be considered, the "Preference in Purchasing Products" form must be on file in the General Services (Procurement) Division and must be dated in the current calendar year.

9.0 ATTACHMENT C

MISSOURI DOMESTIC PRODUCTS PROCUREMENT ACT

The bidder's attention is directed to the Missouri Domestic Products Procurement Act, Sections 34.350 to 34.359, RsMO, which requires all manufactured goods or commodities used or supplied in the performance of this contract or any subcontract to be manufactured or produced in the United States.

Section 34.355, RsMO, requires the vendor or contractor to certify his compliance with Section 34.353 and, if applicable, Section 34.359, RsMO, at the time of bidding **and** prior to payment. Failure to comply with Section 34.353, RsMO, during the performance of the contract **and** to provide certification of compliance prior to payment will result in nonpayment for those goods or commodities.

Section 34.353.2, RsMO, specifies that it does not apply where the total contract is less than Twenty-Five Thousand Dollars (\$25,000.00). If your total bid is Twenty-Five Thousand Dollars (\$25,000.00) or more, you **must** complete this form as directed below.

Failure to complete and return this document with this bid will cause the State to presume the manufactured goods or products listed in the bid are not manufactured or produced in the United States, and the bid will be evaluated on that basis. Please read the certification appearing below on this form.

- [] If all the goods or products specified in the attached bid which the bidder proposes to supply to the State shall be manufactured or produced in the "United States" as defined in Section 34.350, RsMO, check the box at left.
- [] If only one item of any particular goods or products specified in the attached bid is manufactured or produced in the "United States" as defined in Section 34.350, RsMO, check the box at left and list the items (or item number) here:
- [] If any or all of the goods or products specified in the attached bid which the bidder proposes to supply to the State are **not** manufactured or produced in the "United States" as defined in Section 34.350, RsMO, then: (a) check the box at left; (b) list below, by item (or item number), the country other than the United States where each good or product is manufactured or produced; and (c) check the boxes to the left of the paragraphs below if applicable and list the corresponding items (or item numbers) in the spaces provided.

Item (or item number)	Location Where Item Manufactured or Produced

(attach an additional sheet if necessary)

- [] The following specified goods or products cannot be manufactured or produced in the United States in sufficient quantities or in time to meet the contract specifications. Items (or item numbers): _____
- [] The following specified goods or products must be treated as manufactured or produced in the United States, in accordance with an existing treaty, law, agreement, or regulation of the United States, including a treaty between the United States and any foreign country regarding export-import restrictions or international trade. Items (or item numbers): _____

CERTIFICATION

By submitting this document, completed as directed above, with a bid, the bidder certifies under penalty of making false declaration (Section 575.060, RsMO) that the information contained in this document is true, correct and complete, and may be relied upon by the State in determining the bidders qualifications under and in compliance with the Missouri Domestic Products Procurement Act.

The bidder's failure to complete and return this document with the bid as directed above will cause the State to presume the manufactured goods or products listed in the bid are not manufactured or produced in the United States, and the bid will be evaluated on that basis pursuant to Section 34.353.3(2), RsMO.

10.0 ATTACHEMENT D SIGNATURE AND IDENTITY OF BIDDER

The undersigned states that the correct LEGAL NAME and ADDRESS of (1) the individual Bidder, (2) each partner or joint venture (whether individuals or corporations, and whether doing business under a fictitious name), or (3) the corporation (with the state in which it is incorporated) are shown below; that (if not signing with the intention of binding himself to become the responsible and sole contractor) he is the agent of, and duly authorized in writing to sign for the Bidder or Bidders; and that he is signing and executing this (as indicated in the proper spaces below) as the proposal of a

() sole individual () partnership () joint venture

() corporation, incorporated under laws of state of _____

Dated _____.

Name of individual, all partners,
or joint ventures:

Address of each:

_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____

doing business under the name of:

Address of principal place of business in Missouri

(If using a fictitious name, show
this name above in addition
to legal names)

(If a corporation, show its name above)

ATTEST: (SEAL)

_____	_____
Secretary	Title

(NOTE: If the Bidder is doing business under a FICTITIOUS NAME, the Proposal shall be executed in the legal name of the individual, partners, joint ventures, or corporation, with the legal address shown, and REGISTRATION OF FICTITIOUS NAME filed with the Secretary of State, as required by Sections 417.200 to 417.230, RS Mo. If the Bidder is a CORPORATION NOT ORGANIZED UNDER THE LAWS OF MISSOURI, it shall procure a CERTIFICATE OF AUTHORITY TO DO BUSINESS IN MISSOURI, as required by Section 351.570 and following, RS Mo. A CERTIFIED COPY of such Registration of Fictitious Name or Certificate of Authority to do Business in Missouri shall be filed with the Missouri Highways and Transportation Commission, as required by the Standard specifications, Sec 102.6.6 and 102.6.7.

11.0 ATTACHMENT E

WORKER ELIGIBILITY VERIFICATION AFFIDAVIT FOR ALL MHTC/MODOT CONTRACT AGREEMENTS IN EXCESS OF \$5,000 (for joint ventures, a separate affidavit is required for each business entity)

STATE OF _____)
) ss
COUNTY OF _____)

On this _____ day of _____, 20____, before me appeared _____, personally known to me or proved to me on the basis of satisfactory evidence to be a person whose name is subscribed to this affidavit, who being by me duly sworn, deposed as follows:

My name is _____, and I am of sound mind, capable of making this affidavit, and personally certify the facts herein stated, as required by Section 285.530, RSMo, to enter into any contract agreement with the state to perform any job, task, employment, labor, personal services, or any other activity for which compensation is provided, expected, or due, including but not limited to all activities conducted by business entities:

I am the _____ of _____, and I am duly authorized, directed, and/or empowered to act officially and properly on behalf of this business entity.

I hereby affirm and warrant that the aforementioned business entity is enrolled in a federal work authorization program operated by the United States Department of Homeland Security to verify information of newly hired employees, and the aforementioned business entity shall participate in said program with respect to all employees working in connection to work under the within state contract agreement with the Missouri Highways and Transportation Commission (MHTC). I have attached documentation to this affidavit to evidence enrollment/participation by the aforementioned business entity in a federal work authorization program, as required by Section 285.530, RSMo.

In addition, I hereby affirm and warrant that the aforementioned business entity does not and shall not knowingly employ, in connection to work under the within state contract agreement with MHTC, any alien who does not have the legal right or authorization under federal law to work in the United States, as defined in 8 U.S.C. § 1324a(h)(3).

I am aware and recognize that, unless certain contract and affidavit conditions are satisfied pursuant to Section 285.530, RSMo, the aforementioned business entity may be held liable under Sections 285.525 through 285.550, RSMo, for subcontractors that knowingly employ or continue to employ any unauthorized alien to work within the state of Missouri.

I acknowledge that I am signing this affidavit as a free act and deed of the aforementioned business entity and not under duress.

Affiant Signature

Subscribed and sworn to before me this _____ day of _____, 20____.

Notary Public

My commission expires:

[documentation of enrollment/participation in a federal work authorization program attached]

12.0 ATTACHMENT F
MISSOURI SERVICE-DISABLED VETERAN BUSINESS PREFERENCE

By virtue of statutory authority, RSMo 34.074, a preference will be given all contracts for the performance of any job or service to service-disabled veteran business either doing business as Missouri firms, corporations, or individuals; or which maintain Missouri offices or places of business, when the quality of performance promised is equal or better and the price quoted is the same or less or whenever competing bids, in their entirety, are comparable.

Definitions:

Service-Disabled Veteran is defined as any individual who is disabled as certified by the appropriate federal agency responsible for the administration of veterans' affairs.

Service-Disabled Veteran Business is defined as a business concern:

- a. Not less than fifty-one (51) percent of which is owned by one or more service-disabled veterans or, in the case of any publicly owned business, not less than fifty-one (51) percent of the stock of which is owned by one or more service-disabled veterans; and
- b. The management and daily business operations of which are controlled by one or more service-disabled veterans.

If an offeror meets the definitions of a service-disabled veteran and a service-disabled veteran business as defined in 34.074 RSMo and is either doing business as a Missouri firm, corporation, or individual; or maintains a Missouri office or place of business, the offeror **must** provide the following with the proposal in order to receive the Missouri service-disabled veteran business preference over a non-Missouri service-disabled veteran business when the quality of performance promised is equal or better and the price quoted is the same or less or whenever competing proposals, in their entirety, are comparable:

- a. A copy of a letter from the Department of Veterans Affairs (VA), or a copy of the offeror's discharge paper (DD Form 214, Certificate of Release or Discharge from Active Duty) from the branch of service the offeror was in, stating that the offeror has a service-connected disability rating ranging from 0 to 100% disability; and
- b. A completed copy of this exhibit

(NOTE: For ease of evaluation, please attach copy of the above-referenced letter from the VA or a copy of the offeror's discharge paper to this Exhibit.)

By signing below, I certify that I meet the definitions of a service-disabled veteran and a service-disabled veteran business as defined in 34.074 RSMo and that I am either doing business as a Missouri firm, corporation, or individual; or maintain Missouri offices or places of business at the location(s) listed below.

Veteran Information

Business Information

Service-Disabled Veteran's Name, (Please Print)

Service-Disabled Veteran Business Name

Service-Disabled Veteran's Signature

Missouri Address of Service-Disabled Veteran Business

610-091-RW Vehicle Video Detection System
BID BOND

KNOW ALL MEN BY THESE PRESENTS, that we _____,

as Principal and _____, as Surety are held and firmly bound unto the **STATE OF MISSOURI** (acting by and through the **Missouri Highways and Transportation Commission**) in the penal sum of:

Dollars

(\$ _____) to be paid to the **State of Missouri or to the Missouri Highways and Transportation Commission**, to be credited to the State Road Fund, the Principal and Surety binding themselves, their heirs, executors, administrators, successors, and assigns, jointly and severally, firmly by these presents.

Sealed with our seals and dated this _____

THE CONDITION OF THIS OBLIGATION is such that:

WHEREAS, the Principal is submitting herewith a bid to the Missouri Highways and Transportation Commission for furnishing a Vehicle Video Detection System as set out in the bid to which this bond is attached.

NOW THEREFORE, if the Missouri Highways and Transportation Commission shall accept the bid of the Principal and if said Principal shall properly execute and deliver to the Missouri Highways and Transportation Commission the contract and contract bond in compliance with the requirements of the proposal, the specifications and the provisions of law, to the satisfaction of the Highways and Transportation Commission, then this obligation shall be void and of no effect, otherwise to remain in full force and effect.

In the event the said Principal shall, in the judgment of the Missouri Highways and Transportation Commission, fail to comply with any requirement as set forth in the preceding paragraph, then the State of Missouri acting through the Missouri Highways and Transportation Commission shall immediately and forthwith be entitled to recover the full penal sum above set out, together with court costs, attorney's fees and any other expense of recovery.

(SEAL)

Principal

By

Signature

(SEAL)

Surety

By

Attorney-in-Fact

NOTE: This bond must be executed by the **PRINCIPAL** and by a **CORPORATE SURETY** authorized to conduct surety business in the State of Missouri.

STANDARD SOLICITATION PROVISIONS

- a. The Missouri Department of Transportation (MoDOT) reserves the right to reject any or all bids/quotes/proposals, and to accept or reject any items thereon, and to waive technicalities. In case of error in the extension of prices in the bid/quote/proposal, unit prices will govern.
- b. All bids/quotes/proposals must be signed with the firm name and by a responsible officer or employee. Obligations assumed by such signature must be fulfilled.
- c. By virtue of statutory authority, a preference will be given to materials, products, supplies, provisions and all other articles produced, manufactured, made or grown, within the State of Missouri.
- d. Time of delivery is a part of the consideration and, if not otherwise stated in the solicitation documents, must be stated in definite terms by the Bidder/Offeror and must be adhered to. If time varies on different items, the Bidder/Offeror shall so state.
- e. If providing bids/quotes/proposals for commodities, the Bidder/Offeror will state brand or make on each item. If bidding or proposing other than the make, model or brand specified, the manufacturer's name, model number or catalog number must be given.
- f. **For bids/proposals of \$25,000 or more**, no bids/proposals by telephone, telegram or telefax will be accepted.
- g. The date specified for the returning of bids/quotes/proposals is a firm deadline and all bids/quotes/proposals must be received at the designated office by that time. The Department does not recognize the U.S. Mail, Railway Express Agency, Air Express, or any other organization, as its agent for purposes of accepting proposals. All proposals arriving at the designated office after the deadline specified will be rejected.

GENERAL TERMS AND CONDITIONS

General Performance

- a. This work is to be performed under the general supervision and direction of the Missouri Department of Transportation (MoDOT) and, if awarded any portion of the work, the Contractor agrees to furnish at his own expense all labor and equipment required to complete the work, it being expressly understood that this solicitation is for completed work based upon the price(s) specified and is not a solicitation for rental of equipment or employment of labor by MoDOT, and MoDOT is to have no direction or control over the employees used by the Contractor in performance of the work.

Deliveries

- a. Unless otherwise specified on the solicitation documents or purchase order, suppliers shall give at least 24 hours advance notice of each delivery. Delivery will only be received between the hours of 8:00 a.m. to 3:00 p.m., Monday through Friday. Material arriving after 3:00 p.m. will not be unloaded until the following workday. No material will be received on Saturday, Sunday or state holidays.
- b. If the prices bid herein include the delivery cost of the material, the Contractor agrees to pay all transportation charges on the material as FOB - Destination. Freight costs must be included in the unit price bid and not listed as a separate line item.
- c. Any demurrage is to be paid by the Contractor direct to the railroad or carrier.

Nondiscrimination

- a. The Contractor shall comply with the Regulations relative to nondiscrimination in federally-assisted programs of the Department of Transportation, Title 49, Code of Federal Regulations, Part 21, as they may be amended from time to time, (hereinafter referred to as the Regulations), which are herein incorporated by reference and made a part of this contract.
- b. All solicitations either by competitive bidding or negotiation made by the Contractor for work to be performed under a subcontract, including procurements of materials or leases of the Contractor's obligations under this contract and the Regulations, will be relative to nondiscrimination on the grounds of race, color, or national origin.
 - 1) Sanctions for Noncompliance: In the event of the Contractor's noncompliance with the nondiscrimination provisions of this contract, MoDOT shall impose such contract sanctions as it or the Federal Highway Administration may determine to be appropriate, including, but not limited to:
 - i. withholding of payments to the Contractor under the contract until the Contractor complies, and/or,
 - ii. cancellation, termination or suspension of the contract, in whole or in part.

Contract/Purchase Order

- a. By submitting a bid/quote/proposal, the Bidder/Offeror agrees to furnish any and all equipment, supplies and/or services specified in the solicitation documents, at the prices quoted, pursuant to all requirements and specifications contained therein.
- b. A binding contract shall consist of: (1) the solicitation documents, amendments thereto, and/or Best and Final Offer (BAFO) request(s) with any changes/additions, (2) the Contractor's proposal and/or submitted pricing, and (3) the MHTC's acceptance of the proposal and/or bid by purchase order or post-award contract.
- c. A notice of award does not constitute an authorization for shipment of equipment or supplies or a directive to proceed with services. Before providing equipment, supplies and/or services, the Contractor must receive a properly authorized purchase order and/or notice to proceed.
- d. The contract expresses the complete agreement of the parties and performance shall be governed solely by the specifications and requirements contained therein. Any change, whether by modification and/or supplementation, must be accomplished by a formal contract amendment signed and approved by and between the duly authorized representative of the Contractor and the duly authorized representative of the MHTC, by a modified purchase order prior to the effective date of such modification. The Contractor expressly and explicitly understands and agrees that no other method and/or no other document, including correspondence, acts, and oral communications by or from any person, shall be used or construed as an amendment or modification.

Subcontracting

- a. It is specifically understood that no portion of the material or any interest in the contract, shall be subcontracted, transferred, assigned or otherwise disposed of, except with the written consent of MoDOT. Request for permission to subcontract or otherwise dispose of any part of the work shall

be in writing to MoDOT and accompanied by documentation showing that the organization which will perform the work is particularly experienced and equipped for such work.

- b. Consent to subcontract or otherwise dispose of any portion of the work shall not be construed to relieve the Contractor of any responsibility for the production and delivery of the contracted work and the completion of the work within the specified time.
- c. All payments for work performed by a subcontractor shall be made to the Contractor to whom the contract was awarded and the purchase order issued.

Invoicing and Payment

- a. MoDOT is exempt from paying Missouri Sales Tax, Missouri Use Tax and Federal Excise Tax. However, the Contractor may themselves be responsible for the payment of taxes on materials they purchase to fulfill the contract. A Project Tax Exemption Certificate will be furnished to the successful Bidder/Officer upon request if applicable.
- b. Each invoice should be itemized in accordance with items listed on the purchase order and/or contract. The statewide financial management system has been designed to capture certain receipt and payment information. Therefore, each invoice submitted must reference the purchase order number and must be itemized in accordance with items listed on the purchase order. Failure to comply with this requirement may delay processing of invoices for payment.
- c. Unless otherwise provided for in the solicitation documents, payment for all equipment, supplies, and/or services required herein shall be made in arrears. The Missouri Highways and Transportation Commission (MHTC) shall not make any advance deposits.
- d. The MHTC assumes no obligation for equipment, supplies, and/or services shipped or provided in excess of the quantity ordered. Any authorized quantity is subject to the MHTC's rejection and shall be returned at the Contractor's expense.
- e. The MHTC reserves the right to purchase goods and services using the state-purchasing card.

Applicable Laws and Regulations

- a. The contract shall be construed according to the laws of the State of Missouri. The Contractor shall comply with all local, state, and federal laws and regulations related to the performance of the contract.
- b. The Contractor must be registered and maintain good standing with the Secretary of State of the State of Missouri and other regulatory agencies, as may be required by law or regulations. Prior to the issuance of a purchase order and/or notice to proceed, the Contractor may be required to submit to MoDOT a copy of their current Authority Certificate from the Secretary of State of the State of Missouri.
- 1) Prior to the issuance of a purchase order and/or notice to proceed, all **out-of-state** Contractors providing services within the state of Missouri must submit to MoDOT a copy of their current Transient Employer Certificate from the Department of Revenue, in addition to a copy of their current Authority Certificate from the Secretary of State of the State of Missouri.
- c. The exclusive venue for any legal proceeding relating to or arising, out of the contract shall be in the Circuit Court of Cole County, Missouri.
- d. Pursuant to RSMo 285.530 (1), no business entity or employer shall knowingly employ, hire for employment, or continue to employ an unauthorized alien to perform work within the state of Missouri. As a condition for the award of any contract or grant in excess of five thousand dollars by the state or by any political subdivision of the state to a business entity, or for any business entity receiving a state-administered or subsidized tax credit, tax abatement, or loan from the state, the business entity shall, by sworn affidavit and provision of documentation, affirm its enrollment and participation in a federal work authorization program with respect to the employees working in connection with the contracted services. Every such business entity shall sign an affidavit affirming that it does not knowingly employ any person who is unauthorized alien in connection with the contracted services. [RSMo 285.530 (2)] A copy of the affidavit referenced above is provided within this document.

Executive Order

- a. The Contractor shall comply with all the provisions of Executive Order 07-13, issued by the Honorable Matt Blunt, Governor of Missouri, on the sixth (6th) day of March, 2007. This Executive Order, which promulgates the State of Missouri's position to not tolerate persons who contract with the state engaging in or supporting illegal activities of employing individuals who are not eligible to work in the United States, is incorporated herein by reference and made a part of this Agreement.
- 1) "By signing this Agreement, the Contractor hereby certifies that any employee of the Contractor assigned to perform services under the contract is eligible and authorized to work in the United States in compliance with federal law."
- 2) In the event the Contractor fails to comply with the provisions of the Executive Order 07-13, or in the event the Commission has reasonable cause to believe that the contractor has knowingly employed individuals who are not eligible to work in the United States in violation of federal law, the Commission reserves the right to impose such contract sanctions as it may determine to be appropriate, including but not limited to contract cancellation, termination or suspension in whole or in part or both.
- 3) The Contractor shall include the provisions of this paragraph in every subcontract. The Contractor shall take such action with respect to any subcontract as the Commission may direct as a means of enforcing such provisions, including sanctions for noncompliance.

Preferences

- a. In the evaluation of bids/quotes/proposals, preferences shall be applied in accordance with Chapter 34 RSMo. Contractors should apply the same preferences in selecting subcontractors.
- b. By virtue of statutory authority, RSMo. 34.076 and 34.350 to 34.359, a preference will be given to materials, products, supplies, provisions and all other articles produced, manufactured, made or grown within the State of Missouri. Such preference shall be given when quality is equal or better and delivered price is the same or less.
 - 1) If attached, the document entitled **"PREFERENCE IN PURCHASING PRODUCTS"** should be completed and returned with the solicitation documents.
 - 2) If attached, the document entitled **"MISSOURI DOMESTIC PRODUCTS PROCUREMENT ACT"** should be completed and returned with the solicitation documents. **Applies if bid is Twenty-Five Thousand Dollars (\$25,000.00) or more.**
- c. By virtue of statutory authority, RSMo 34.074, a preference will be given all contracts for the performance of any job or service to service-disabled veteran business either doing business as Missouri firms, corporations, or individuals; or which maintain Missouri offices or places of business, when the quality of performance promised is equal or better and the price quoted is the same or less or whenever competing bids, in their entirety, are comparable.
 - 1) If attached, the document entitled **"MISSOURI SERVICE-DISABLED VETERAN PREFERENCE"** should be completed and returned with the solicitation documents.
- d. In the event of a tie of low bids, the MHTC reserves the right to establish the method to be used in determining the award

Remedies and Rights

- a. No provision in the contract shall be construed, expressly or implied, as a waiver by the MHTC of any existing or future right and/or remedy available by law in the event of any claim by the MHTC of the Contractor's default or breach of contract.
- b. The Contractor agrees and understands that the contract shall constitute an assignment by the Contractor to the MHTC of all rights, title and interest in and to all causes of action that the Contractor may have under the antitrust laws of the United States or State of Missouri for which causes of action have accrued or will accrue as the result of or in relation to the particular equipment, supplies, and/or services purchased or produced by the Contractor in the fulfillment of the contract with the MHTC.
- c. In the event a Contractor becomes involved in, or is threatened with, litigation with a subcontractor or supplier as a result of such direction, the Contractor may request MoDOT to enter into such litigation to protect the interests of the MHTC, and, in addition, the Contractor may request the United States to enter into such litigation to protect the interests of the United States.

Cancellation of Contract

- a. The MHTC may cancel the contract at any time for a material breach of contractual obligations or for convenience by providing the Contractor with written notice of cancellation. Should the MHTC exercise its right to cancel the contract for such reasons, cancellation will become effective upon the date specified in the notice of cancellation sent to the Contractor.
- b. If the MHTC cancels the contract for breach, the MHTC reserves the right to obtain the equipment, supplies, and/or services to be provided pursuant to the contract from other sources and upon such terms and in such manner as the MHTC deems appropriate and charge the Contractor for any additional costs incurred thereby.

Bankruptcy or Insolvency

- a. Upon filing for any bankruptcy or insolvency proceeding by or against the Contractor, whether voluntary or involuntary, or upon the appointment of a receiver, trustee, or assigned the benefit or creditors, the Contractor must notify MoDOT immediately. Upon learning of any such actions, the MHTC reserves the right, at its sole discretion, to either cancel the contract or affirm the contract and hold the Contractor responsible for damages.

Inventions, Patents, and Copyrights

- a. The Contractor shall defend, protect, and hold harmless the MHTC, its officers, agents, and employees against all suits of law or in equity resulting from patent and copyright infringement concerning the Contractor's performance or products produced under the terms of the contract.

Inspection and Acceptance

- a. No equipment, supplies, and/or services received by MoDOT pursuant to a contract shall be deemed accepted until MoDOT has had reasonable opportunity to inspect said equipment, supplies, and/or services.
- b. All equipment, supplies, and/or services which do not comply with the specifications and/or requirements or which are otherwise unacceptable or defective may be rejected. In addition, all equipment, supplies, and/or services which are discovered to be defective or which do not conform to any warranty of the Contractor upon inspection (or at any later time if the defects contained were not reasonably ascertainable upon the initial inspection) may be rejected.
- c. The MHTC reserves the right to return any such rejected shipment at the Contractor's expense for full credit or replacement and to specify a reasonable date by which replacements must be received.
- d. The MHTC's right to reject any unacceptable equipment, supplies, and/or services shall not exclude any other legal, equitable or contractual remedies the MHTC may have.

Warranty

- a. The Contractor expressly warrants that all equipment, supplies, and/or services provided shall: (1) conform to each and every specification, drawing, sample or other description which was furnished to or adopted by MoDOT, (2) be fit and sufficient for the purpose expressed in the solicitation documents, (3) be merchantable, (4) be of good materials and workmanship, and (5) be free from defect.
- b. Such warranty shall survive delivery and shall not be deemed waived either by reason of the MHTC's acceptance of or payment for said equipment, supplies, and/or services.

Status of Independent Contractor

- a. The Contractor represents itself to be an independent Contractor offering such services to the general public and shall not represent itself or its employees to be an employee of the MHTC. Therefore, the Contractor shall assume all legal and financial responsibility for taxes, FICA, employee fringe benefits, workers' compensation, employee insurance, minimum wage requirements, overtime, etc., and agrees to indemnify, save and hold the MHTC, its officers, agents and employees harmless from and against any and all losses (including attorney fees) and damage of any kind related to such matters.

Indemnification

- a. The Offeror shall defend, indemnify and hold harmless the Commission, including its members and department employees, from any claim or liability whether based on a claim for damages to real or personal property or to a person for any matter relating to or arising out of the Offeror's performance of its obligations under this Agreement.

SPECIAL TERMS AND CONDITIONS

Insurance

- a. The Contractor shall purchase and maintain such insurance as will protect him from claims under workmen's compensation acts and other employee benefit acts, from claims for damages because of bodily injury, including death, and from claims for damages to property which may arise out of or result from the Contractor's operations under this Contract, whether such operations be by himself or by any Subcontractor or anyone directly or indirectly employed by any of them.
- b. This insurance shall be written for not less than any limits of liability specified as part of this contract, or required by law, whichever is the greater, and shall include contractual liability insurance as applicable to the Contractor's obligations under this contract. Unless otherwise specified, insurance limits shall be as follows:
 - 1) Workmen's Compensation: Workers Compensation Insurance, including "Occupational Disease Act" requirements, must be maintained **if** required by law.
 - 2) Public Liability (includes property damage and personal injury):
 - i. Not less than \$400,000 for any one person in a single accident or occurrence.
 - ii. Not less than \$2,500,000 for all claims arising out of a single occurrence.
 - 3) Special Hazard Insurance: As required.
 - 4) Builder's Risk: Not less than the full Contract amount.

Required Specifications

- a. All materials, equipment, and/or services bid upon must comply with the attached MoDOT Specification and any other provisions outlined in the solicitation documents.
- b. The material to be supplied under the contract will comply with the quality and gradation requirements of the **Missouri Standard Specifications for Highway Construction, Edition of 2004**, and any revisions thereto, unless modified by these specifications.

Proposal/Bid Guaranty/Contract Bond

- a. Each proposal shall be accompanied by a Bid Bond, Certified Check, Cashier's Check or Bank Money Order payable to the Director of Revenue – Credit State Road Fund for an amount equal to Five Percent (5%) of the amount of the BID submitted. This is to act as a guarantee that the bidder, if awarded the contract, will furnish an acceptable performance and payment bond (Contract Bond) or a cashier's check, a bank money order or a certified check made payable to "Director of Revenue--Credit State Road Fund" in an amount equal to One Hundred (100%) of the contract price.
- b. If a BID BOND is used (in lieu of a certified check, cashier's check, or bank money order), it must be in the form provided and executed by the bidder as principal and by a surety company authorized to do business in the State of Missouri as surety. The agent executing the same on behalf of the surety company must attach a current Power of Attorney setting forth his authority to execute the bond involved.
- c. Certified Checks, Cashier's Checks or Bank Money Orders of unsuccessful bidders will be returned as soon as the award is made. The checks or bank money orders of the successful bidder(s) will be retained until the contract is executed and a satisfactory Performance and Payment (Contract Bond) is furnished. Bid Bonds will not be returned except on specific request of the bidder.

Information and Reports

- a. The Contractor shall provide all information and reports required by the Regulations, or Directives issued pursuant thereto, and shall permit access to its books, records, accounts, other sources of information, and its facilities as may be determined by the Missouri Department of Transportation or the Federal Highway Administration to be pertinent to ascertain compliance with such Regulations or Directives. Where any information required of a Contractor is in the exclusive possession of another who fails or refuses to furnish this information the Contractor shall so certify to the Missouri Department of Transportation, or the Federal Highway Administration as appropriate, and shall set forth what efforts it has made to obtain the information.

Prevailing Wage

- a. If the bid/quote/proposal is accepted, the vendor will be required to comply with the prevailing wages as fixed by the Missouri Department of Labor and Industrial Relations, in effect as of the date of the issuance of the solicitation, for each affected craft and type of workmen in the following county(ies): **St. Charles**. The Annual Wage Order #_16 may be inspected at any District Office or at the Central Office in Jefferson City, MO.
- b. The Contractor shall submit notarized weekly payroll affidavit documentation included with the project request for payment. The successful vendor must provide a lien waiver from all material suppliers.

Permits, Licenses and Safety Issues

- a. The contract price shall include any necessary permits and licenses required by law incidental to the work. Local ordinances requiring building permits are not applicable to state agencies.
- b. The Contractor will comply with local laws involving safety in the prosecution of the work.

Award

- a. Award of this bid/quote/proposal will be made on an "All or Nothing" basis using the "lowest and best" principle of award.

Failure to Execute Contract

- d. Failure to execute the contract and file acceptable performance payment (Contract Bond) or cashier's check, bank money order or certified check within **15 days** after the contract has been mailed to the bidder shall be just cause for the cancellation of the award and the forfeiture of the proposal guaranty. Award may then be made to the next lowest responsible bidder, or the work may be re-advertised and performed under contract or otherwise, as the Commission may decide. No contract shall be considered effective until it has been executed by all parties thereto.

Notice to Proceed

- a. Within **30 days** after the execution of the contract, a "**Notice to Proceed**" will be issued by the Department. A purchase order will be attached to the "Notice to Proceed," which will specify the date or dates that the Contractor can start delivery, roadway or stockpile delivery and will also include the completion dates. These dates will be in accordance with the dates shown in the proposal.

Delivery – Additional Requirements

- b. The following days shall be construed as **official holidays** under the terms of the contract:

January 1	New Year's Day
Third Monday in January	Martin Luther King, Jr.'s Birthday
February 12	Lincoln's Birthday
Third Monday in February	Washington's Birthday
May 8	Truman's Birthday
Last Monday in May	Memorial Day
July 4	Independence Day
First Monday in September	Labor Day
Second Monday in October	Columbus Day
November 11	Veteran's Day
Fourth Thursday in November	Thanksgiving Day
December 25	Christmas Day

- c. When any of the above **holidays falls** on a **Sunday**, the holiday will be observed on the following **Monday**; when any of the above **holidays falls** on a **Saturday**, the **holiday** will be observed on the immediately preceding **Friday**.

Increase or Decrease Quantities

- a. The Highways and Transportation Commission reserves the right to increase or decrease the quantity of material twenty-five percent (25%), subject to the maximum quantity specified by the bidder in his proposal.
- b. The quantity finally ordered by the Commission will be furnished by the bidder at the same unit price per ton.

Temporary Suspension of Work

- a. The **District Engineer** shall have authority to suspend work wholly or in part for such period or periods as may be deemed necessary when weather or other conditions are such that in the opinion of the engineer, the work may be done at a later time with advantage to the Department or for failure on the part of the Contractor to comply with any of the provisions of the Contract.
- b. If the Department suspends the work for its own advantages and not because of the Contractor's failure to comply with the Contract, the Contractor will be allowed an equal number of calendar days after the completion date for the completion of the work. The Department may at its discretion give the Contractor an extension of time for completing the work where the Contractor incurs delays for causes beyond his control.
- c. Normal rainfall is not considered a cause qualifying for an extension of time. Claim for extension of time for all causes must be submitted by the Contractor in writing within **30 Days** after the claimed cause for the delay has ceased to exist.

Cancellation of Contract

- a. If the Contractor/supplier fails to carry out the performance of the work with sufficient workmen and equipment to insure the completion of the delivery within the time specified or becomes insolvent or is adjudicated a bankrupt or commits any act of bankruptcy or insolvency or allows any final judgment to stand against him for a period of ten (10) days, the Missouri Department of Transportation may give notice in writing by registered mail to the Contractor/supplier and the surety of such delay, neglect or default.
- b. If, within ten (10) days after such notice the Contractor/supplier does not proceed to remedy to the satisfaction of the Department's representatives the faults specified in said notice, or the surety does not proceed to take over the deliveries, the Department shall have full power and authority, without

impairing the obligation of the Contractor/supplier under the contract or the surety under the bond, to take over the completion of the work and arrange for the shipment of any materials necessary to complete the work and the Contractor/supplier and the surety will be responsible for any additional costs incurred by the Department in obtaining the completion of the deliveries.

Liquidated Damages

- a. In the event the successful Contractor fails to deliver the material within the time specified, the Department and the public will sustain damages because of such delay in delivery, the exact extent of which would be difficult to ascertain, and in order to liquidate such damage in advance it is agreed that the **sum of one-thousand dollars (\$1000.00) per day**, for each assessable calendar day on which the work has not been completed, is reasonable and the best estimate which the parties can arrive at as liquidated damages, and it is therefore agreed that said amount will be withheld from payments due the Contractor or otherwise collected from the Contractor as liquidated damages.
- b. Saturdays, Sundays, holidays and days whereas the Department has suspended work shall not be assessable days.

Environmental Issues

- c. Attention of the bidder is invited to the **Land Reclamation Act, Chapter 444, Laws of 1971, (House Bill 519)** and the necessity for compliance if applicable.
- d. The Contractor shall take necessary precautions and shall schedule and conduct his operations so as to avoid or minimize siltation of streams while removing gravel there from.